

SEQUENCE LISTING

<110> Brachmann, Rainer

<120> ENGINEERED OPEN READING FRAME FOR P53

<130> 004255.00008

<160> 71

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1182

<212> DNA

<213> Artificial sequence

<220>

<223> Produced by genetic engineering

<400> 1

atggaagaac	cacagtca	tcctagcg	tc	gaaccac	tc	tgagtca	gga	aac	tttca	60
gac	ctgt	g	a	att	gt	ttcc	taaa	aca	ac	120
gat	gat	tt	g	ta	g	cc	aa	ca	at	180
gat	gaag	ctc	cac	gaat	gtc	ccac	ggcg	ctt	cc	240
acac	ccgg	cc	cc	cc	cc	cc	cc	cc	cc	300
aaa	ac	tt	cc	cc	cc	cc	cc	cc	cc	360
tct	gtt	ac	tc	tcc	cc	aa	ca	at	cc	420
tgcc	cag	tt	gt	cc	cc	tt	gg	cc	cc	480
ccat	ct	act	cc	cc	cc	tt	gg	cc	cc	540
cg	ct	gt	cc	cc	cc	cc	cc	cc	cc	600
tt	ac	gt	cc	cc	cc	cc	cc	cc	cc	660
gag	cc	cc	cc	cc	cc	cc	cc	cc	cc	720
tc	at	gt	cc	cc	cc	cc	cc	cc	cc	780
tc	ag	gt	cc	cc	cc	cc	cc	cc	cc	840
gat	cc	cc	cc	cc	cc	cc	cc	cc	cc	900
cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	960
aa	ac	cc	cc	cc	cc	cc	cc	cc	cc	1020
tt	cc	cc	cc	cc	cc	cc	cc	cc	cc	1080
gg	cc	cc	cc	cc	cc	cc	cc	cc	cc	1140
aaaa	aa	tt	cc	cc	cc	cc	cc	cc	cc	1182
aa	aa	tt	cc	cc	cc	cc	cc	cc	cc	

<210> 2

<211> 1182

<212> DNA

<213> Artificial sequence

<220>

<223> Produced by genetic engineering

<400> 2

atggaagaac	cacagtca	tcctagcg	tc	gaaccac	cc	tgagtca	gga	aac	tttca	60
gat	ctgt	g	a	g	ttcc	taaa	aca	ac	120	
gat	gat	tt	g	ta	g	cc	aa	ca	at	180
gat	gaag	ctc	cac	gaat	gtc	ccac	ggcg	ctt	cc	240
acac	ccgg	cc	cc	cc	cc	cc	cc	cc	cc	300
aaa	ac	tt	cc	cc	cc	cc	cc	cc	cc	360
tct	gtt	ac	tc	tcc	cc	aa	ca	at	cc	420
tgcc	cag	tt	gt	cc	cc	tt	gg	cc	cc	480
ccat	ct	act	cc	cc	cc	tt	gg	cc	cc	540
cg	ct	gt	cc	cc	cc	cc	cc	cc	cc	600
tt	ac	gt	cc	cc	cc	cc	cc	cc	cc	

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ctacgcgtgg	agtatctaga	tgaccgcaac	actttcgac	acagtgtgg	gggccatat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	gtgtAACAGT	720
tcatgcattgg	gcggcatgaa	ccggcggccg	atccgtacca	tcatcactct	cgaggattcc	780
tcaggttaatc	tccttaggacg	gaattccctt	gaggtgcgtg	tttgcgtat	cccgccgc	840
gatgcggcgg	ccgaagagga	aatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagaca	ctaagcgagc	actgc当地	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttgg	acggagaata	tttc当地	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtc当地	ctccgccc当地	1140
aaaaaaactga	gttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 3

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 3

atggaagaac	cacagtccaga	tcctagcg	gaaccacccc	tgagtcagga	aac	60
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gatgatttga	tgctgagccc	agacgatatt	gaacaatgg	tcactgagga	tccaggccc	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaaact	cgcgaagacc	420
tgcccagttcc	aactgtgggt	cgactccacc	cctccac	gtacacgtgt	ccgcgaatg	480
gccatctaca	agcagagcc	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgc	ccacagcatc	ttatccgag	ggaaggtaac	600
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tcaggttaatc	tccttaggacg	gaattccctt	gaggtgcgtg	tttgcgtat	cccgccgc	840
gatgcggcgg	ccgaagagga	aatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagaca	ctaagcgagc	actgc当地	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttgg	acggagaata	tttc当地	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgg	cccattcg	tcacctgaag	tccaaaaagg	gtcagtc当地	tagtc当地	1140
aaaaaaactga	gttcaagac	cgaaggctct	gactcagact	ga		1181

<210> 4

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 4

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gatgatttga	tgctgtccc	agacgatatt	gaacaatgg	tcactgaga	tccaggccc	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaaact	cgcgaagacc	420
tgcccagttcc	aactgtgggt	cgactccacc	cctccac	gtacacgtgt	ccgcgaatg	480
gccatctaca	agcagagcc	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgc	ccacagcatc	ttatccgag	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	actttcgac	acagtgtgg	gggccat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	gtgtAACAGT	720
tcatgcattgg	gcggcatgaa	ccggcggccg	atccgtacca	tcatcactct	cgaggattcc	780

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tcaggttaatc	tcctaggacg	gaattccctt	gagggtcggt	tttgcgtatg	cccgccgcgc	840
gatcgccgga	ccgaagagga	aatctccgg	aagaaagggt	agcctcacca	cgagctgccca	900
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttgg	acggagaata	ttcacccctt	cagatccgt	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctgttaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 5

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 5

tggagaaggacc	acagtcagat	cctagcgtcg	aaccacctct	gagtcaggaa	accfffftag	60
acctgtggaa	attgttccct	gaaaacaacg	ttctgtcccc	attgcctagt	caagcaatgg	120
atgattttagt	gctgtccccca	gacgatattt	aacaatgggt	cactgaagat	ccaggcccag	180
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caccggcgcc	cccagctccg	gccccatctt	ggcctctgtc	atcttctgtc	ccttcccaga	300
aaaccttacca	gggcagctac	ggtttccgtc	tgggcttctt	gcattctgga	actgccaagt	360
ctgttacttg	tacgtactct	ccagccctta	acaagatgtt	ttgccaactc	gcgaagacct	420
gcccagtcca	actgtgggtc	gactccaccc	ctccacctgg	tacacgtgtc	cgcgcaatgg	480
ccatctacaa	gcagagccag	cacatgacgg	aggctgtacg	acgctgtcca	caccatgagc	540
gctgctcaga	ttctgtatgg	ctggcgccac	cacagcatct	tatccgagtg	gaaggttaacc	600
tacgcgttgg	gtatcttagat	gaccgcaaca	cttttcgaca	cagtgtggtg	gtgccccatag	660
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ccatgcgtgg	cggtcatgaac	cagcggccga	tcctgaccat	catcaacttc	gaggattccct	780
caggtaatct	ccttaggacgg	aattcccttg	aggtgcgtgt	ttgtgcattgc	ccgggcccgcg	840
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caggaagcac	taagcgagca	ctgccaaacaa	acaccagcg	ttctccacag	ccaaagaaga	960
aaaccttgg	cggagaatat	ttcacccctt	agatccgtgg	ccgtgagcgg	ttcgagatgt	1020
tccgagagct	gaatgaggcc	ttagaactt	aggatgccc	ggctggtaag	gagccaggag	1080
gcagccgtgc	tcatagcagc	cacctgaagt	tccaaaagg	tcagtctacc	tcccccata	1140
aaaaaaactgtat	gttcaagacc	gaaggctct	actcagactg	a		1181

<210> 6

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 6

atggaaagaaac	cacagtcaga	tcctagcgtc	gaaccacctc	tgagtcagga	aaccffffca	60
gacctgtgg	aattgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgggt	tcaactgaaga	tccaggcccc	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccgggtt	ccccagcac	agcagctcc	240
acaccggcg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaaccttacc	agggcagcta	cggtttccgt	ctgggcttct	tgcatcttgg	aactgccaag	360
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tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcata	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgatc	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgcc	ccacagcatc	ttatccgagt	ggaaggttaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtgg	ggtgcctat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	tgtaacagtt	720
tcatgcgtgg	gcggcatgaa	ccggcggccg	atccgtacca	tcatcaact	cgaggattcc	780
tcaggttaatc	tcctaggacg	gaattccctt	gagggtgcacg	tttgcattgc	cccgccgcgc	840
gatcgccgg	ccgaagagga	aatctccgg	aagaaagggt	gcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaaac	aacaccagca	tttctccaca	gccaaagaag	960

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aaaccttgg	acggagaata	tttcaccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 7

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 7

atggaagaac	cacagtca	tcctagcg	tc	gaaccac	tgagtc	tgagtcagga	aac	tttca	60
gac	ctgtgg	aattgttcc	tgaaaaca	ac	ttctgt	ccc	cattgc	ctag	120
gat	gtttga	tgctgtccc	agacgat	att	gaacaat	gg	tcaagca	atg	180
gat	gaagctc	cacgaatg	cc	agaggcc	gtt	ccccc	ccccag	cacc	240
ac	ccggcg	ccccagct	gg	ccccc	cc	ccctt	ccctt	ccag	300
aa	aaactacc	agggcag	cg	tttcc	ctgt	ttt	tgcatt	ctgg	360
tct	ttactt	gtacgt	tc	ccagcc	ttt	ttt	ttgcatt	ctgg	420
tg	cccagt	aactgt	gg	ccct	ctgt	ttt	gtacac	gtgt	480
gc	catctaca	agcagag	ca	ccat	gtt	ttt	gacg	ctgtcc	540
cg	ctcg	tttctgtgg	cc	ccat	cc	ttt	ttatcc	ccat	600
ct	acgcgt	attatct	tgacc	cc	ccat	ttt	acatgt	gtgt	660
gag	ccacc	aa	cc	ccat	cc	ttt	acaactat	at	720
tc	atgc	tttgg	cc	ccat	cc	ttt	gtcat	ct	780
tc	aggta	tc	cc	ccat	cc	ttt	tttgc	at	840
gat	ccgg	cc	cc	ccat	cc	ttt	ttatcc	ccat	900
cc	agga	cc	cc	ccat	cc	ttt	ttatcc	ccat	960
aa	ac	cc	cc	ccat	cc	ttt	ttatcc	ccat	1020
tac	cc	cc	cc	ccat	cc	ttt	ttatcc	ccat	1080
cc	cc	cc	cc	ccat	cc	ttt	ttatcc	ccat	1140
aa	aa	aa	aa	ccat	cc	ttt	ttatcc	ccat	1182

<210> 8

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 8

atggaagaac	cacagtca	tcctagcg	tc	gaaccac	tgagtc	tgagtcagga	aac	tttca	60
gac	ctgtgg	aattgttcc	tgaaaaca	ac	ttctgt	ccc	cattgc	atg	120
gat	gtttga	tgctgtccc	agacgat	att	gaacaat	gg	tcaagca	180	
gat	gaagctc	cacgaatg	cc	agaggcc	gtt	ccccc	ccccag	cacc	240
ac	ccggcg	ccccagct	gg	ccccc	cc	ccctt	ccctt	ccag	300
aa	aaactacc	agggcag	cg	tttcc	ctgt	ttt	tgcatt	ctgg	360
tct	ttactt	gtacgt	tc	ccagcc	ttt	ttt	ttgcatt	ctgg	420
tg	cccagt	aactgt	gg	ccct	ctgt	ttt	gtacac	gtgt	480
gc	catctaca	agcagag	ca	ccat	gtt	ttt	gacg	ctgtcc	540
cg	ctcg	tttctgtgg	cc	ccat	cc	ttt	ttatcc	ccat	600
ct	acgcgt	attatct	tgacc	cc	ccat	cc	acatgt	gtgt	660
gag	ccacc	aa	cc	ccat	cc	cc	acaactat	at	720
tc	atgc	tttgg	cc	ccat	cc	cc	gtcat	ct	780
tc	aggta	tc	cc	ccat	cc	cc	tttgc	at	840
gat	ccgg	cc	cc	ccat	cc	cc	ttatcc	ccat	900
cc	agga	cc	cc	ccat	cc	cc	ttatcc	ccat	960
aa	ac	cc	cc	ccat	cc	cc	ttatcc	ccat	1020
tac	cc	cc	cc	ccat	cc	cc	ttatcc	ccat	1080
cc	cc	cc	cc	ccat	cc	cc	ttatcc	ccat	1140
aa	aa	aa	aa	ccat	cc	cc	ttatcc	ccat	1182

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aaaaaaactga tttcaagac cgaaggcct gactcagact ga

1182

<210> 9

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 9

atggagaac cacagtcaga tcctagcgtc	gaaccaccc	tgagtcagga	aac	ttttca	60		
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gtatgttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccc	180	
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagtcct	240	
acaccggcgg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttcccag	300	
aaaacctacc	agggcagcta	cggttccgt	ctgggcttct	tgcatctgg	aactgccaag	360	
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaa	cgcgaagacc	420	
tgcccagtcc	aactgtgggt	cgactccacc	cctccac	gtacacgtgt	ccgcgc	480	
gccatctaca	agcagagcca	gcacatgacg	gaggtcgat	gacgctgtcc	acaccatgag	540	
cgctgctca	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600	
ctacgcgtgg	agtatctaga	tgaccgcaac	actttcgac	acagtgtgg	gttgc	660	
gagccaccag	agggcagcta	cggttccgt	ctgggcttct	tgcatctgg	aactgccaag	720	
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ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaagaag	960	
aaacctttgg	acggagaata	tttcacccctt	cagatccgt	gccgtgagcg	tttcgagatg	1020	
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080	
ggcagccgt	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctccgc	1140	
aaaaaaactga	tgttcaagac	cgaaggcct	gactcagact	ga		1182	

<210> 10

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 10

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gac	tttgc	aaatgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gtatgttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccc	180	
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagtcct	240	
acaccggcgg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttcccag	300	
aaaacctacc	agggcagcta	cggttccgt	ctgggcttct	tgcatctgg	aactgccaag	360	
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaa	cgcgaagacc	420	
tgcccagtcc	aactgtgggt	cgactccacc	cctccac	gtacacgtgt	ccgcgc	480	
gccatctaca	agcagagcca	gcacatgacg	gaggtcgat	gacgctgtcc	acaccatgag	540	
cgctgctca	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600	
ctacgcgtgg	agtatctaga	tgaccgcaac	actttcgac	acagtgtgg	gttgc	660	
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gatgcgcgga	ccgaagagga	aatctccgg	aagaaagg	agcctcacca	cgagctgcca	900	
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaagaag	960	
aaacctttgg	acggagaata	tttcacccctt	cagatccgt	gccgtgagcg	tttcgagatg	1020	
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080	
ggcagccgt	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctccgc	1140	
aaaaaaactga	tgttcaagac	cgaaggcct	gactcagact	ga		1182	

<210> 11

433480_1

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 11

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gacctgtgga	aattgctcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcaagctcct	240
acaccggcgg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttccag	300
aaaaccttacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaaact	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcac	actttcgtac	acagtgtgg	ggtgccatat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	gtgtaaacagt	720
tcatgcattgg	gctctatgaa	ccggcggccg	atcctgacca	tcatcactct	cgaggattcc	780
tcaggtatcc	tccttaggacg	gaatttccctt	gaggtcgtg	tttgcgtatg	cccgccgcgc	840
gatgcggcgg	ccgaagagga	gaatctccgg	aagaaagggt	gcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaaagaag	960
aaacctttgg	acggagaata	tttcacccctt	cagatccgt	gccgtgagcg	gttcgagatg	1020
ttcccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 12

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 12

atggaagaac	cacagtcaga	tcctagcgtc	gaaccacctc	tgagtcagga	aacctttca	60
gacctgtgga	aattgctcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcaagctcct	240
acaccggcgg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttccag	300
aaaaccttacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaaact	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcac	actttcgtac	acagtgtgg	ggtgccatgc	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	gtgtaaacagt	720
tcatgcattgg	gctctatgaa	ccggcggccg	atcctgacca	tcatcactct	cgaggattcc	780
tcaggtatcc	tccttaggacg	gaatttccctt	gaggtcgtg	tttgcgtatg	cccgccgcgc	840
gatgcggcgg	ccgaagagga	gaatctccgg	aagaaagggt	gcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaaagaag	960
aaacctttgg	acggagaata	tttcacccctt	cagatccgt	gccgtgagcg	gttcgagatg	1020
ttcccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 13

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 13

atggaagaac	cacagtca	tcctagcgtc	gaaccac	ctc	tgagtca	gga	aac	ctt	ttca	60
gacc	ctgt	gga	aatt	gtt	c	taat	gtt	c	caat	120
gatg	attt	tg	tgct	gtc	ccc	aa	aca	at	gcaat	180
gatg	aa	gctc	cac	gaat	g	at	gat	ttc	ggcc	240
acac	ccgg	cc	cccc	actt	cc	cc	cc	cc	cc	300
aaa	ac	cc	cc	cc	cc	cc	cc	cc	cc	360
tctgtt	actt	gt	ac	gt	cc	cc	cc	cc	cc	420
tgccc	actt	gt	ac	gt	cc	cc	cc	cc	cc	480
gccc	at	gt	ac	gt	cc	cc	cc	cc	cc	540
gccc	at	gt	ac	gt	cc	cc	cc	cc	cc	600
ctac	cg	gt	at	tt	tt	tt	tt	tt	tt	660
gagc	cac	cc	cc	cc	cc	cc	cc	cc	cc	720
tcat	gc	at	gg	cc	cc	cc	cc	cc	cc	780
tcagg	taat	tc	ctt	gg	cc	cc	cc	cc	cc	840
gat	cc	cc	cc	cc	cc	cc	cc	cc	cc	900
ccagg	aa	gg	gg	cc	cc	cc	cc	cc	cc	960
aaac	cc	tt	tt	gg	cc	cc	cc	cc	cc	1020
ttcc	cg	ag	ag	gg	cc	cc	cc	cc	cc	1080
ggc	ag	cc	gt	cc	cc	cc	cc	cc	cc	1140
aaaaaa	act	gt	ta	aa	gg	cc	cc	cc	cc	1182
actg	ta	aa	gg	cc	cc	cc	cc	cc	cc	

<210> 14

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 14

atggaagaac	cacagtca	tcctagcgtc	gaaccac	ctc	tgagtca	gga	aac	ctt	ttca	60
gacc	ctgt	gga	aatt	gtt	c	taat	gtt	c	caat	120
gatg	attt	tg	tgct	gtc	ccc	aa	aca	at	gcaat	180
gatg	aa	gctc	cac	gaat	g	at	gat	ttc	ggcc	240
acac	ccgg	cc	cccc	actt	cc	cc	cc	cc	cc	300
aaa	ac	cc	cc	cc	cc	cc	cc	cc	cc	360
tctgtt	actt	gt	ac	gt	cc	cc	cc	cc	cc	420
tgccc	actt	gt	ac	gt	cc	cc	cc	cc	cc	480
gccc	at	gt	ac	gt	cc	cc	cc	cc	cc	540
gccc	at	gt	ac	gt	cc	cc	cc	cc	cc	600
ctac	cg	gt	at	tt	tt	tt	tt	tt	tt	660
gagc	cac	cc	cc	cc	cc	cc	cc	cc	cc	720
tcat	gc	at	gg	cc	cc	cc	cc	cc	cc	780
tcagg	taat	tc	ctt	gg	cc	cc	cc	cc	cc	840
gat	cc	cc	cc	cc	cc	cc	cc	cc	cc	900
ccagg	aa	gg	gg	cc	cc	cc	cc	cc	cc	960
aaac	cc	tt	tt	gg	cc	cc	cc	cc	cc	1020
ttcc	cg	ag	ag	gg	cc	cc	cc	cc	cc	1080
ggc	ag	cc	gt	cc	cc	cc	cc	cc	cc	1140
aaaaaa	act	gt	ta	aa	gg	cc	cc	cc	cc	1182
actg	ta	aa	gg	cc	cc	cc	cc	cc	cc	

<210> 15

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 15

atggaagaac	cacagtca	tcctagcgtc	gaaccac	ctc	tgagtca	gga	aac	ctttca	60					
gac	ctgtg	ga	aatt	gttcc	tgaaa	acaac	gtt	ctgtccc	catt	gcctag	tca	agcaat	g	120
at	gattt	g	ta	gat	ttt	cc	ag	caat	gg	ta	ct	ga	aa	180
gat	gaag	ctc	ca	cgaat	gtc	agagg	cc	cc	gg	cgt	cc	cc	gacc	240
acacc	gg	cc	cc	cag	ctc	ccccc	at	cc	cc	ctgt	cc	cc	cag	300
aaa	ac	ctacc	agg	gag	cta	cggtt	ccgt	ctgt	ctgg	ctgg	cc	cc	act	360
tct	gtt	actt	gt	acgt	actc	tcc	agg	ccc	ctt	aaca	act	gtc	ca	420
tgcc	cag	ttc	aact	gtg	gggt	cgact	cc	ctt	cc	act	gt	cc	act	480
ccat	ct	acta	agc	ag	gcca	gcac	at	ccat	cc	act	gt	cc	ca	540
cg	ct	ca	tt	ct	gtat	gg	tct	gg	cc	at	cc	gg	at	600
ctac	cg	gt	at	at	tct	gac	cc	ac	ac	gg	at	cc	at	660
gag	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	720
gag	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	780
tc	at	gt	at	gt	at	cc	cc	cc	cc	cc	cc	cc	cc	840
tc	agg	ta	at	tc	ttt	cc	cc	cc	cc	cc	cc	cc	cc	900
gat	cg	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	960
cc	ag	ag	ag	ag	ag	gg	gg	gg	gg	gg	gg	gg	gg	1020
cc	ag	ag	ag	ag	ag	cc	cc	cc	cc	cc	cc	cc	cc	1080
gg	cag	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	1140
gg	cag	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	1182
aaaa	aa	act	gt	ta	ag	ac	g	at	ct	gt	cc	cc	cat	
aaaa	aa	act	gt	ta	ag	ac	g	at	ct	gt	cc	cc	cat	

<210> 16

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 16

atggaagaac	cacagtca	tcctagcgtc	gaaccac	ctc	tgagtca	gga	aac	ctttca	60					
gac	ctgtg	ga	aatt	gttcc	tgaaa	acaac	gtt	ctgtccc	catt	gcctag	tca	agcaat	g	120
at	gattt	g	ta	gat	ttt	cc	ag	caat	gg	ta	ct	ga	aa	180
gat	gaag	ctc	ca	cgaat	gtc	agagg	cc	cc	gg	cgt	cc	cc	gacc	240
acacc	gg	cc	cc	cag	ctc	ccccc	at	cc	cc	ctgt	cc	cc	cag	300
aaa	ac	ctacc	agg	gag	cta	cggtt	ccgt	ctgt	ctgg	ctgg	cc	cc	act	360
tct	gtt	actt	gt	acgt	actc	tcc	agg	ccc	ctt	aaca	act	gtc	ca	420
tgcc	cag	ttc	aact	gtg	gggt	cgact	cc	ctt	cc	act	gt	cc	act	480
ccat	ct	acta	agc	ag	gcca	gcac	at	ccat	cc	act	gt	cc	ca	540
cg	ct	ca	tt	ct	gtat	gg	tct	gg	cc	at	cc	gg	at	600
ctac	cg	gt	at	at	tct	gac	cc	ac	ac	gg	at	cc	at	660
gag	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	720
gag	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	780
tc	at	gt	at	gt	at	cc	cc	cc	cc	cc	cc	cc	cc	840
tc	agg	ta	at	tc	ttt	cc	cc	cc	cc	cc	cc	cc	cc	900
gat	cg	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	960
cc	ag	ag	ag	ag	ag	gg	gg	gg	gg	gg	gg	gg	gg	1020
cc	ag	ag	ag	ag	ag	cc	cc	cc	cc	cc	cc	cc	cc	1080
gg	cag	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	1140
gg	cag	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	1182
aaaa	aa	act	gt	ta	ag	ac	g	at	ct	gt	cc	cc	cat	
aaaa	aa	act	gt	ta	ag	ac	g	at	ct	gt	cc	cc	cat	

<210> 17

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 17

atggaagaac cacagtca

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gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgcact	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcac	acttttcgac	acagtgtgg	ggtgccat	660
gagccaccag	aagtggc	tgactgcacc	accatccact	acaactat	gtgtacagt	720
tcatgcattgg	gcggcatgaa	ccggcggccg	atccctgacca	tcatcactt	cgaggattcc	780
ttaggttaatc	tccttaggacg	gaattccctt	gaggtcgtg	tttgcacat	cccgccgcgc	840
gatgcggcgg	ccaaaggagga	gaatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttgg	acggagaata	tttcacccctt	cagatccgt	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctt	gactcagact	ga		1182

<210> 18

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 18

atggaagaac	cacagtcaga	tcctagcg	gaaccac	ttagtcagga	aac	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgcact	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcac	acttttcgac	acagtgtgg	ggtgccat	660
gagccaccag	aagtggc	tgactgcacc	accatccact	acaactat	gtgtacagt	720
tcatgcattgg	gcggcatgaa	ccggcggccg	atccctgacca	tcatcactt	cgaggattcc	780
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gatgcggcgg	ccgaaggagga	gaatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttgg	acggagaata	tttcacccctt	cagatccgt	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctt	gactcagact	ga		1182

<210> 19

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 19

atggaagaac	cacagtcaga	tcctagcg	gaaccac	ttagtcagga	aac	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccgggt	ccccagcacc	agcagctcct	240

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acaccggcgg	ccccagctcc	ggcccccattcc	tggcctctgt	catcttctgt	cccttcccag	300
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tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgcact	cgcgaagacc	420
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gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggtg	agcctcacca	cgagctgcca	900
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aaacctttgg	acggagaata	tttcacccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaa	tccaaaagg	gtcagtctac	ctccgcct	1140
aaaaaactga	tgttcaagac	cgaaggctt	gactcagact	ga		1182

<210> 20

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 20

atggagaaac	cacagtca	tccttagcgtc	gaaccaccc	tgagtcagga	aacctttca	60
gacctgtgg	aattgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcaactgaa	tccaggccca	180
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aaaaccttacc	agggcagcta	cgggttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
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tgcccagttc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgaatg	480
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ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaagaag	960
aaacctttgg	acggagaata	tttcacccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaa	tccaaaagg	gtcagtctac	ctccgcct	1140
aaaaaactga	tgttcaagac	cgaaggctt	gactcagact	ga		1182

<210> 21

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 21

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gacctgtgg	aattgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcaactgaa	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggcccccattcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaaccttacc	agggcagcta	cgggttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgcact	cgcgaagacc	420

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cgctgctcag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
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gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactat	gtgtaacagt	720
tcatgcgtgg	gcggcatgaa	ccggcgccg	atcctgacca	tcatcactct	cgaggattcc	780
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gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgcacaaac	aacaccagca	gttctccaca	gccaaagaag	960
aaacctttgg	acggagaata	tttccaccc	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaactga	tgttcaagac	cgaaggctc	gactcagact	ga		1182

<210> 22

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 22

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atgattttagt	gctgtcccc	gacgatattg	aacaatggtt	cactgaagat	ccaggcccag	180
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taccggcggc	cccagctccg	gccccatcc	ggcctctgtc	atcttctgtc	ccttcccaga	300
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aacctttgg	cggagaata	ttcacccttc	agatccgtgg	ccgtgagcgg	ttcgagatgt	1020
cccgagagct	gaatgaggc	ttagaactt	aggatgccc	ggctggtaa	gagccaggag	1080
cgagccgtgc	tcatagcagc	cacctgaat	ccaaaagg	tcagtctacc	tccgcctata	1140
aaaaaactga	tttcaagacc	gaaggctc	actcagact	ga		1181

<210> 23

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 23

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccc	180
gatgaagctc	cacgaatgca	agaggccgct	ccaccgggt	ccccagcac	gcagctcc	240
acaccggcgg	ccccagctcc	ggccccatcc	tggctctgt	catcttctgt	ccttcccag	300
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gccatctaca	agcagagcca	gcacatgacg	gaggtcgatc	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600

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aaaccttgg	acggagaata	tttc当地	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtc当地	ctccgccat	1140
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<210> 24

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 24

atggaaagaac	cacagtcaga	tcctagcgtc	gaaccaccc	tgagtca	ggccat	60
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gatgatttga	tgctgtccc	agacgatatt	gaacaatgg	tcaactga	aa	180
gatgaagctc	cacgaatg	ccggccgt	ccaccgtt	cccgac	ccgac	240
acaccggcgg	ccccagctcc	ggcccccatt	tggcctct	catcttct	ccctccc	300
aaaacctacc	agggcagct	cggttccgt	ctggcctt	tgcattct	taactgcca	360
tctgttactt	gtacgtact	tccagccctt	aacaagatgt	tttgc当地	cgc当地	420
tgcccagtcc	aactgtgg	cgactccacc	cctccac	gtacacgt	ccgc当地	480
ccatctaca	agcagagcc	gcacatgac	gagg	gacgctgt	acaccatg	540
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cgctgctcag	attctgtatgg	tctggcgc	ccacagcat	ttatccg	ggaaggta	1140
ctacgcgtgg	agtatctaga	tgaccgca	actttcgac	acagtgtgg	ggtgc当地	1182
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tcatgcattgg	gctgcatgaa	ccggcggcc	atcctgacca	tcatcact	cgaggattcc	
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<210> 25

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 25

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gatgatttga	tgctgtccc	agacgatatt	gaacaatgg	tcaactga	aa	180
gatgaagctc	cacgaatg	ccggccgt	ccaccgtt	cccgac	ccgac	240
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aaaacctacc	agggcagct	cggttccgt	ctggcctt	tgcattct	taactgcca	360
tctgttactt	gtacgtact	tccagccctt	aacaagatgt	tttgc当地	cgc当地	420
tgcccagtcc	aactgtgg	cgactccacc	cctccac	gtacacgt	ccgc当地	480
ccatctaca	agcagagcc	gcacatgac	gagg	gacgctgt	acaccatg	540
cgctgctcag	attctgtatgg	tctggcgc	ccacagcat	ttatccg	ggaaggta	600
ctacgcgtgg	agtatctaga	tgaccgca	actttcgac	acagtgtgg	ggtgc当地	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactat	gtgtaaac	720
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ccaggaagca	ctaagcgagc	actgc当地	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttgg	acggagaata	tttcacccctt	cagatccgtg	gccgtgagcg	ttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctccgc当地	1140
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<210> 26

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 26

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gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccc	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggcccccattc	tggctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccccc	aacaagatgt	tttgc当地	cgcaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccaccc	gtacacgtgt	gcacgcaatg	480
gccatctaca	agcagagcc	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
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gagccaccag	aagttggctc	tgactgc当地	accatccact	acaactat	gtgtaacagt	720
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aaaccttgg	acggagaata	tttcacccctt	cagatccgtg	gccgtgagcg	ttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctccgc当地	1140
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<210> 27

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 27

atggaagaac	cacagtcaga	tcctagcgtc	gaaccaccc	tgagtcagga	aacctttca	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccc	180
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gatcgccgga	ccgaagagga	aatctccgg	aagaagggtg	agcctcacca	cgagctgcca	900
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgcctat	1140
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<210> 28

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 28

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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgcctat	1140
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<210> 29

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 29

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aaaaaaactga tggcaagac cgaaggcct gactcagact ga

1182

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<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 30

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<210> 31

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

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gatgcgggaa	ccgaagagga	aatctccgg	aagaagggt	agcctcacca	cgagctgcca	900	
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaaagaag	960	
aaaccttgg	acggagaata	tttcaccctt	cagatccgt	gccgtgagcg	gttcgagatg	1020	
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080	
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgcacat	1140	
aaaaaaactga	tgttcaagac	cgaaggctt	gactcagact	ga		1182	

<210> 32

433480_1

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 32

atggaagaac	cacagtca	gaaccac	tgagtc	aacctt	60
gacctgtg	aaattgtt	ccccc	cattgc	taagca	120
gatgattt	tgctgt	ccctt	gaacaat	tcactga	180
gatgaagc	cacgaat	ggccg	ttggc	cccccag	240
acaccggc	ccccag	ccccc	catctt	cccttccc	300
aaaacctt	aggcag	ccatcc	tgccat	tgccat	360
tctgttac	gtacgtac	ccagcc	tttgcc	aactgcca	420
tgcccagt	aactgtgg	cgactcc	gtacac	cgcgaagacc	480
gccatctac	agcagag	gcacat	gaggtc	ccgcgc	540
cgctgctca	attctgat	tcctgg	gacgct	acaccat	600
ctacgcgt	agtatctag	cgcaac	ttatcc	ggaaggta	660
gagccacc	aagttgg	tgactgc	tgccat	tttgccat	720
tcatgc	gcccgt	ccggat	atcc	cgaggatt	780
tcaaggta	tccttagg	gatattc	gaggtc	cccgcc	840
gatcgccg	ccgaagag	aatctcc	tttgc	gagatg	900
ccaggaag	ctaagcg	actgcca	tttgc	ggagcc	960
aaacctt	acggaga	tttcac	ccatcc	tttgc	1020
ttccgag	tgaatgag	cttaga	aggatg	ggaggcc	1080
ggcagcc	ctcatagc	ccac	aggctgg	ggaggcc	1140
aaaaaa	actg	tttcaag	actg	tttgc	1182

<210> 33

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 33

atggaagaac	cacagtca	gaaccac	tgagtc	aacctt	60
gacctgtg	aaattgtt	ccccc	cattgc	taagca	120
gatgattt	tgctgt	ccctt	gaacaat	tcactga	180
gatgaagc	cacgaat	ggccg	ttggc	cccccag	240
acaccggc	ccccag	ccccc	catctt	cccttccc	300
aaaacctt	aggcag	ccatcc	tgccat	tgccat	360
tctgttac	gtacgtac	ccagcc	tttgcc	aactgcca	420
tgcccagt	aactgtgg	cgactcc	gtacac	cgcgaagacc	480
gccatctac	agcagag	gcacat	gaggtc	ccgcgc	540
cgctgctca	attctgat	tcctgg	gacgct	acaccat	600
ctacgcgt	agtatctag	cgcaac	ttatcc	ggaaggta	660
gagccacc	aagttgg	tgactgc	tgccat	tttgccat	720
tcatgc	gcccgt	ccggat	atcc	cgaggatt	780
tcaaggta	tccttagg	gatattc	gaggtc	cccgcc	840
gatcgccg	ccgaagag	aatctcc	tttgc	gagatg	900
ccaggaag	ctaagcg	actgcca	tttgc	ggagcc	960
aaacctt	acggaga	tttcac	ccatcc	tttgc	1020
ttccgag	tgaatgag	cttaga	aggatg	ggaggcc	1080
ggcagcc	ctcatagc	ccac	aggctgg	ggaggcc	1140
aaaaaa	actg	tttcaag	actg	tttgc	1182

<210> 34

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 34

atggaaagaac	cacagtca	tccttagcg	gaaccac	tgagtca	aacc	60
gaccctgtgg	aattgttcc	tgaaaaca	gttctgt	cattgc	tcaagca	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactga	tccaggccc	180
gatgaagctc	cacaatgcc	agaggccg	ccaccgg	ccccagc	accagctc	240
acaccggcg	ccccagctcc	ggccccatcc	tggcctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgc	360
tctgttactt	gtacgtactc	tccagcc	aacaagatgt	tttgccaa	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccac	gtacacgt	ccgcgc	480
gccatctaca	agcagagcc	gcacatgac	gagg	gacgctgtcc	acaccatgag	540
cgctgtctcg	attctgtatgg	tctggc	ccacagcatc	ttatccg	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgca	actttcgac	acagtgt	gg	660
gagccaccag	aagtggctc	tgactgc	accatccact	acaactat	gt	720
tcatgcatgg	gcggcatgaa	ccggcgc	atcttgacca	tcatcact	c	780
tcaggttaatc	tccttaggac	gaattcc	gagatgc	tttgtgc	ccccc	840
gatgcggcga	ccgaagagga	gaatctcc	gagaaagg	agcctc	cgag	900
ccaggaagca	ctaagcgagc	actgcca	aacaccag	gttctcc	gcca	960
aaaccttgg	acggagaata	tttccac	cagatcc	gccgtg	agcg	1020
ttcccgagagc	tgaatgaggc	cttagaa	aaggatgc	aggctgg	aa	1080
ggcagccgtg	ctcatagcag	ccacctg	tccaaaagg	gtcag	tctcc	1140
aaaaaaactga	tgttcaagac	cgaaagg	gactc	ga		1182

210 35

<211> 1182

<212> DNA

*213> Artificial Sequence

220

<223> Produced by genetic engineering

<400> 35

atggaaaggac	cacagtca	tccttagcgtc	gaaccaccc	tgagtccgga	aaccctttca	60
gacccgttgg	aattgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
atgtattgt	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
atgtaaagtc	cacaatgcc	agaggccgt	ccacccgttg	ccccagcacc	agacgtcct	240
atcacccggcg	ccccagctcc	ggggccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaaacctacc	agggcagcta	cggttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaaact	cgcgaagacc	420
tgcccagttc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcata	480
gccccatctaca	agcagagcca	gcacatgacg	gaggtcgatc	gacgctgtcc	acaccatgag	540
cgcgtctcag	attctgtatgg	tctggcgc	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtgg	ggtgccat	660
gagccaccag	aagtggctc	tgactgcacc	accatccact	acaactat	gtgtaaacagt	720
tcatgcattgg	gccccatgaa	ccggcggccg	atccgtacca	tcatcaact	cgaggattcc	780
tcaggtaatc	tccctaggacg	gaattccccc	gagggtgcgt	tttgtgcatg	cccgccgc	840
gatcccccgg	ccggaaaaggaa	gaatctccgg	aagaaagggt	agcctcacca	cgcagtcaca	900
ccaggaagca	ctaagcgac	actgccaaac	aaacccagca	gttctccaca	gccaaagaag	960
aaaccccttgg	acggagaata	tttcacccctt	cagatccgt	gccgtgagcg	gttcgagatg	1020
ttcccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtcata	ctcccgccat	1140
aaaaaaactgt	tgttcaagac	cqaaggctc	qactcaact	qa		1182

<210> 36

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 36

atggaagaac	cacagtcaga	tcctagcgtc	gaaccacctc	tgagtcagga	aacctttca	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggttccgt	ctgggcttct	tgcatctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtccctgc	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgcct	ccacagcatc	ttatccgagt	ggaaggttaac	600
ctacgcgtgg	agtatctaga	tgaccgcac	acttttcgac	acagtgtgtt	gttgccat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactat	gtgtacagt	720
tcatgcattgg	gcgtcatgaa	ccggcggccg	atccctgacca	tcatcactct	cgaggattcc	780
tcaggttaatc	tccttaggacg	gaattccctt	gaggtgcgtg	tttgcgtatg	cccgccgc	840
gatgcccgga	ccgaagagga	gaatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaaac	aacaccagca	gttctccaca	gccaagaag	960
aaacctttgg	acggagaata	tttcacccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaaactgta	tgttcaagac	cgaaggctt	gactcagact	ga		1182

<210> 37

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 37

atggaagaac	cacagtcaga	tcctagcgtc	gaaccacctc	tgagtcagga	aacctttca	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggttccgt	ctgggcttct	tgcatctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtgcgtc	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgcct	ccacagcatc	ttatccgagt	ggaaggttaac	600
ctacgcgtgg	agtatctaga	tgaccgcac	acttttcgac	acagtgtgtt	gttgccat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactat	gtgtacagt	720
tcatgcattgg	gcgtcatgaa	ccggcggccg	atccctgacca	tcatcactct	cgaggattcc	780
tcaggttaatc	tccttaggacg	gaattccctt	gaggtgcgtg	tttgcgtatg	cccgccgc	840
gatgcccgga	ccgaagagga	gaatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaaac	aacaccagca	gttctccaca	gccaagaag	960
aaacctttgg	acggagaata	tttcacccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaaactgta	tgttcaagac	cgaaggctt	gactcagact	ga		1182

<210> 38

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 38

atggaagaac	cacagtcaga	tcctagcgtc	gaaccacctc	tgagtcagga	aacctttca	60
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gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggttccgt	ctgggcttct	tgcatctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaaact	cgcgaagagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgatc	gacggttaccc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgc	ccacagcatc	ttatccgagt	ggaaggttaac	600
ctacgcgtgg	agtatctaga	tgaccgc	actttcgac	acagtgtgg	gttgcataat	660
gagccaccag	aagttggc	tgactgc	accatccact	acaactat	gttaacagt	720
tcatgc	atgg	gcggcatgaa	ccggcggccg	atcctgacca	tcatcactct	780
tca	ggtaatc	tccttaggacg	gaattcc	gaggtgcgt	tttgcgtat	840
gatgc	ccgg	ccgaagagga	aatctcc	aggatgg	ccggccgc	900
ccaggaagca	ctaagcg	actgc	aacaccagca	gttctccaca	gccaagaag	960
aaaccttgg	acggagaata	tttca	catcc	gccgtgagcg	ttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgt	ctcatagc	ccac	tccaaaagg	gtcagtctac	ctccgc	1140
aaaaaactga	tgttcaagac	cgaagg	gactcagact	ga		1182

<210> 39

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 39

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gac	ctgt	gg	aatt	gtt	cc	ttcc	gaaa	aca	ac	gtt	ctgt	ccc	catt	gcct	ta	gcaat	g	caat	g	120
gat	attt	ga	tg	ctgt	cccc	cc	agac	gat	att	ga	acaat	gg	tc	actg	aa	gcca	gg	cc	gg	180
gat	gaag	ctc	cac	gaat	gcc	cc	aggg	ccg	cgt	cc	ccc	cc	cc	cc	cc	cc	cc	cc	240	
ac	acc	ggc	gg	cccc	atcc	cc	gg	cc	gt	cc	tt	tt	tt	tt	tt	tt	tt	tt	300	
aa	aa	ctacc	agg	cc	gtt	cc	gg	cc	gt	cc	tt	tt	tt	tt	tt	tt	tt	tt	360	
t	c	gtt	act	tc	c	cc	tt	cc	tt	cc	aa	tt	tt	tt	tt	tt	tt	tt	420	
t	g	cc	cc	gtt	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	480	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	540	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	600	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	660	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	720	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	780	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	840	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	900	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	960	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	1020	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	1080	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	1140	
cc	cc	atc	act	tc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	1182	

<210> 40

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 40

atggaagaac	cacagt	caga	tcctag	cg	tc	ga	accac	c	t	tg	agtc	agg	aa	cc	ttt	ca	ttt	ca	60	
gac	ctgt	gg	aatt	gtt	cc	ttcc	gaaa	aca	ac	gtt	ctgt	ccc	catt	gcct	ta	gcaat	g	caat	g	120
gat	attt	ga	tg	ctgt	cccc	cc	agac	gat	att	ga	acaat	gg	tc	actg	aa	gcca	gg	cc	gg	180
gat	gaag	ctc	cac	gaat	gcc	cc	aggg	ccg	cgt	cc	ccc	cc	cc	cc	cc	cc	cc	cc	240	

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acaccggcgg	ccccagctcc	ggcccccattcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgcact	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgcttag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtgg	ggtgccat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactat	gttaacagt	720
tcatgcatgg	gcccgcataaa	ccggcggccg	atcctgacca	tcatcactct	cgaggattcc	780
tcaggttaatc	tccttaggacg	gaattccctt	gaggtcgtg	tttgcat	cctccggccgc	840
gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaagaag	960
aaacctttgg	acggagaata	tttcacccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaa	tccaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaactga	tgttcaagac	cgaaggctc	gactcagact	ga		1182

<210> 41

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 41

atggagaac	cacagtca	tcctagcgtc	gaaccaccc	tgagtcagga	aacctttca	60
gacctgtgg	aattgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcaactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggcccccattcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
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tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgcttag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtgg	ggtgccat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactat	gttaacagt	720
tcatgcatgg	gcccgcataaa	ccggcggccg	atcctgacca	tcatcactct	cgaggattcc	780
tcaggttaatc	tccttagagc	gaattccctt	gaggtcgtg	tttgcat	cctccggccgc	840
gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggt	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaagaag	960
aaacctttgg	acggagaata	tttcacccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaa	tccaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaactga	tgttcaagac	cgaaggctc	gactcagact	ga		1182

<210> 42

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 42

atggagaac	cacagtca	tcctagcgtc	gaaccaccc	tgagtcagga	aacctttca	60
gacctgtgg	aattgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcaactgaaga	tccaggccca	180
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aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctt	gactcagact	ga		1182

<210> 43

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 43

atggagaaac	cacagtcaga	tcctagcgtc	gaaccaccc	tgagtcagga	aacctttca	60
gacctgtgg	aattgtttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcaactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcac	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgcctact	cgcgaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggctgtac	gacgctgtcc	acaccatgag	540
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctt	gactcagact	ga		1182

<210> 44

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 44

atggagaaac	cacagtcaga	tcctagcgtc	gaaccaccc	tgagtcagga	aacctttca	60
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gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcaactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcac	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
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gccatctaca	agcagagcca	gcacatgacg	gaggctgtac	gacgctgtcc	acaccatgag	540
cgctgcttag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600

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aaacctttgg	acggagaata	tttc当地	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtc当地	ctccgccat	1140
aaaaaaactga	tgttcaagac	cgaaggctc	gactcagact	ga		1182

<210> 45

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 45

atggaaagaac	cacagtcaga	tcctagcgtc	gaaccaccc	tgagtcagga	aacctttca	60
gacctgtgg	aattgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgtat	gaacaatgg	tcaactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagctcct	240
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aaaacctacc	agggcagcta	cgggttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
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tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgc当地	480
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cgctgctcag	attctgtatgg	tctggcgc当地	ccacagcatc	ttatccgatg	ggaaggtaac	600
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtc当地	ctccgccat	1140
aaaaaaactga	tgttcaagac	cgaaggctc	gactcagact	ga		1182

<210> 46

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 46

atggaaagaac	cacagtcaga	tcctagcgtc	gaaccaccc	tgagtcagga	aacctttca	60
gacctgtgg	aattgttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgtat	gaacaatgg	tcaactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgt	ccaccgggt	ccccagcacc	agcagctcct	240
acaccggcg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cgggttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgc当地	cgc当地	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgc当地	480
ccatctaca	agcagagcca	gcacatgacg	gaggtcatgc	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgtatgg	tctggcgc当地	ccacagcatc	ttacacgatg	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	actttcgac	acagtgtgg	ggtgccat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	gtgtacagt	720
tcatgcattgg	gcggcatgaa	ccggcggccg	atcctgacca	tcatcactct	cgaggattcc	780

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gatcgccgga	ccgaagagga	aatctccgg	aagaaaggtg	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaac	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttgg	acggagaata	tttccccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaagg	gtcagtctac	ctccgcctat	1140
aaaaaactga	tgttcaagac	cgaaggtcct	gactcagact	ga		1182

<210> 47

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 47

tggaagaacc	acagtcagat	cctagcgctg	aaccacctct	gagtcaggaa	acctttcag	60
acctgtggaa	attgtttcct	gaaaacaacg	ttctgtcccc	attgcctagt	caagcaatgg	120
atgatttgc	gctgtcccc	gacgatattt	aacaatggtt	cactgaagat	ccaggcccag	180
atgaagctcc	acgaatgcca	gaggccgctc	caccgggtgc	cccagcacca	gcagctccta	240
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aaacctacca	gggcagactac	ggttccgtc	tgggttctt	gcattctgga	actgccaagt	360
ctgttacttg	tacgtactct	ccagccctta	acaagatgtt	ttaccaactc	gcgaagacct	420
gcccagtcca	actgtgggtc	gactccaccc	ctccacctgg	tacacgtgtc	cgccaaatgg	480
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caggttaatct	ccttaggacgg	atttccttt	aggtcgtgt	ttgtgcatac	ccggggccgc	840
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aaaccttgg	cggagaatat	ttcacccttc	agatccgtgg	ccgtgagcgg	ttcgagatgt	1020
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ccagccgtgc	tcatagcagc	cacctgaagt	ccaaaagg	tcagtctacc	tccgcctata	1140
aaaaaactgt	gttcaagacc	gaaggtcctg	actcagact	ga		1181

<210> 48

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 48

atggaaagaac	cacagtcaga	tcctagcgtc	gaaccacctc	tgagtcagga	aacctttca	60
gacctgtgg	aatgtttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttgc	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgccc	agaggccgt	ccaccgggt	ccccagcac	agcagctcct	240
acaccggccgg	ccccagctcc	ggccccatcc	tggctctgt	catcttctgt	cccttcccag	300
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tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaaact	cgcaagacc	420
tgcccagtcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
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gatcgccgga	ccgaagagga	aatctccgg	agaaagggtg	agcctcacca	cgagctgcca	900
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gcaagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaaactga	tgttcaagac	cgaaggtcct	gactcagact	ga		1182

<210> 49

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 49

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gtatgttga	tgctgtcccc	agacgtat	gaacaatgg	tcactgaaga	tccaggccc	180
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaaactga	tgttcaagac	cgaaggtcct	gactcagact	ga		1182

<210> 50

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 50

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ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140

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aaaaaaactga tttcaagac cgaaggcct gactcagact ga

1182

<210> 51

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 51

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acaccggcgg cccca	cccccattcc	ccctccat	300
aaaacctacc agggcagcta	cggtttccgt	tgattctgt	360
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tcaggttaatc tccttaggacg	gaattcc	tttgc	840
gatgcgggaa ccgaagagga	aatctccgg	ccgcgtcc	900
ccaggaagca ctaagcgagc	actgcca	acaccatgag	960
aaacctttgg acggagaata	tttccac	ttatccgagt	1020
ttccgagagc tgaatgaggc	cttagaactt	ggaggttaac	1080
ggcagccgtg ctcata	ccac	ggagccagga	1140
aaaaaaactga tttcaagac	cgaaggcct	gtcagtctac	1182

<210> 52

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 52

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gacctgtgga aattgcttcc	tgaaaacaac gttctgtccc	cattgcctag tca	120
gatgatttga tgctgtcccc	agacgatatt gaacaatgg	tcactgaaga tcc	180
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acaccggcgg cccca	cccccattcc	ccctccat	300
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tgcccagtcc aactgtgggt	cgactccacc	ccgcgcaatg	480
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tcatgcattgg gcggcatgaa	ccggcgccg	tttgc	780
tcaggttaatc tccttaggacg	gaattcc	ccgcgtcc	840
gatgcgggaa ccgaagagga	aatctccgg	acaccatgag	900
ccaggaagca ctaagcgagc	actgcca	ttatccgagt	960
aaacctttgg acggagaata	tttccac	ggagccagga	1020
ttccgagagc tgaatgaggc	cttagaactt	ggaggttaac	1080
ggcagccgtg ctcata	ccac	gtcagtctac	1140
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<210> 53

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 53

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<210> 54

<211> 393

<212> PRT

<213> Homo sapiens

<400> 54

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									20					30	
Ser	Pro	Leu	Pro	Ser	Gln	Ala	Met	Asp	Asp	Leu	Met	Leu	Ser	Pro	Asp
									35					45	
Asp	Ile	Glu	Gln	Trp	Phe	Thr	Glu	Asp	Pro	Gly	Pro	Asp	Glu	Ala	Pro
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Arg	Met	Pro	Glu	Ala	Ala	Pro	Pro	Val	Ala	Pro	Ala	Pro	Ala	Ala	Pro
									65					80	
Thr	Pro	Ala	Ala	Pro	Ala	Pro	Ala	Pro	Ser	Trp	Pro	Leu	Ser	Ser	Ser
									85					95	
Val	Pro	Ser	Gln	Lys	Thr	Tyr	Gln	Gly	Ser	Tyr	Gly	Phe	Arg	Leu	Gly
									100					110	
Phe	Leu	His	Ser	Gly	Thr	Ala	Lys	Ser	Val	Thr	Cys	Thr	Tyr	Ser	Pro
									115					125	
Ala	Leu	Asn	Lys	Met	Phe	Cys	Gln	Leu	Ala	Lys	Thr	Cys	Pro	Val	Gln
									130					140	
Leu	Trp	Val	Asp	Ser	Thr	Pro	Pro	Gly	Thr	Arg	Val	Arg	Ala	Met	
									145					160	
Ala	Ile	Tyr	Lys	Gln	Ser	Gln	His	Met	Thr	Glu	Val	Val	Arg	Arg	Cys
									165					175	
Pro	His	His	Glu	Arg	Cys	Ser	Asp	Ser	Asp	Gly	Leu	Ala	Pro	Pro	Gln
									180					190	
His	Leu	Ile	Arg	Val	Glu	Gly	Asn	Leu	Arg	Val	Glu	Tyr	Leu	Asp	Asp
									195					205	
Arg	Asn	Thr	Phe	Arg	His	Ser	Val	Val	Val	Pro	Tyr	Glu	Pro	Pro	Glu
									210					220	

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Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
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 Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
 245 250 255
 Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val
 260 265 270
 Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn
 275 280 285
 Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr
 290 295 300
 Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Pro Gln Pro Lys Lys
 305 310 315 320
 Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu
 325 330 335
 Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp
 340 345 350
 Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His
 355 360 365
 Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met
 370 375 380
 Phe Lys Thr Glu Gly Pro Asp Ser Asp
 385 390

<210> 55

<211> 393

<212> PRT

<213> Homo sapiens

<400> 55

Met Glu Glu Pro Gln Ser Asp Pro Ser Val Glu Pro Pro Leu Ser Gln
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 Glu Thr Phe Ser Asp Leu Trp Lys Leu Leu Pro Glu Asn Asn Val Leu
 20 25 30
 Ser Pro Leu Pro Ser Gln Ala Met Asp Asp Leu Met Leu Ser Pro Asp
 35 40 45
 Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro
 50 55 60
 Arg Met Pro Glu Ala Ala Pro Arg Val Ala Pro Ala Pro Ala Ala Pro
 65 70 75 80
 Thr Pro Ala Ala Pro Ala Pro Ala Pro Ser Trp Pro Leu Ser Ser Ser
 85 90 95
 Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly
 100 105 110
 Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro
 115 120 125
 Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln
 130 135 140
 Leu Trp Val Asp Ser Thr Pro Pro Pro Gly Thr Arg Val Arg Ala Met
 145 150 155 160
 Ala Ile Tyr Lys Gln Ser Gln His Met Thr Glu Val Val Arg Arg Cys
 165 170 175
 Pro His His Glu Arg Cys Ser Asp Ser Asp Gly Leu Ala Pro Pro Gln
 180 185 190
 His Leu Ile Arg Val Glu Gly Asn Leu Arg Val Glu Tyr Leu Asp Asp
 195 200 205
 Arg Asn Thr Phe Arg His Ser Val Val Val Pro Tyr Glu Pro Pro Glu
 210 215 220
 Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
 225 230 235 240
 Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
 245 250 255
 Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val
 260 265 270

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Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn
275 280 285
Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr
290 295 300
Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys
305 310 315 320
Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu
325 330 335
Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp
340 345 350
Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His
355 360 365
Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met
370 375 380
Phe Lys Thr Glu Gly Pro Asp Ser Asp
385 390

<210> 56

<211> 393

<212> PRT

<213> Homo sapiens

<400> 56

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35 40 45
Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro
50 55 60
Arg Met Pro Glu Ala Ala Pro Arg Val Ala Pro Ala Pro Ala Ala Pro
65 70 75 80
Thr Pro Ala Ala Pro Ala Pro Ser Trp Pro Leu Ser Ser Ser
85 90 95
Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly
100 105 110
Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro
115 120 125
Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln
130 135 140
Leu Trp Val Asp Ser Thr Pro Pro Pro Gly Thr Arg Val Arg Ala Met
145 150 155 160
Ala Ile Tyr Lys Gln Ser Gln His Met Thr Glu Val Val Arg Arg Cys
165 170 175
Pro His His Glu Arg Cys Ser Asp Ser Asp Gly Leu Ala Pro Pro Gln
180 185 190
His Leu Ile Arg Val Glu Gly Asn Leu Arg Val Glu Tyr Leu Asp Asp
195 200 205
Arg Asn Thr Phe Arg His Ser Val Val Val Pro Tyr Glu Pro Pro Glu
210 215 220
Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
225 230 235 240
Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
245 250 255
Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val
260 265 270
Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn
275 280 285
Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr
290 295 300
Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys

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305 310 315 320
Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu
325 330 335
Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp
340 345 350
Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His
355 360 365
Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met
370 375 380
Phe Lys Thr Glu Gly Pro Asp Ser Asp
385 390

<210> 57

<211> 393

<212> PRT

<213> Homo sapiens

<400> 57

Met Glu Glu Pro Gln Ser Asp Pro Ser Val Glu Pro Pro Leu Ser Gln
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Glu Thr Phe Ser Asp Leu Trp Lys Leu Leu Pro Glu Asn Asn Val Leu
20 25 30
Ser Pro Leu Pro Ser Gln Ala Met Asp Asp Leu Met Leu Ser Ser Asp
35 40 45
Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro
50 55 60
Arg Met Pro Glu Ala Ala Pro Pro Val Ala Pro Ala Pro Ala Ala Pro
65 70 75 80
Thr Pro Ala Ala Pro Ala Pro Ala Pro Ser Trp Pro Leu Ser Ser Ser
85 90 95
Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly
100 105 110
Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro
115 120 125
Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln
130 135 140
Leu Trp Val Asp Ser Thr Pro Pro Pro Gly Thr Arg Val Arg Ala Met
145 150 155 160
Ala Ile Tyr Lys Gln Ser Gln His Met Thr Glu Val Val Arg Arg Cys
165 170 175
Pro His His Glu Arg Cys Ser Asp Ser Asp Gly Leu Ala Pro Pro Gln
180 185 190
His Leu Ile Arg Val Glu Gly Asn Leu Arg Val Glu Tyr Leu Asp Asp
195 200 205
Arg Asn Thr Phe Arg His Ser Val Val Val Pro Tyr Glu Pro Pro Glu
210 215 220
Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
225 230 235 240
Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
245 250 255
Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val
260 265 270
Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn
275 280 285
Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr
290 295 300
Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys
305 310 315 320
Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu
325 330 335
Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp
340 345 350
Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His

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355	360	365
Leu Lys Ser Lys Lys Gly Gln	Ser Thr Ser Arg His	Lys Lys Leu Met
370	375	380
Phe Lys Thr Glu Gly Pro Asp Ser Asp		
385	390	

<210> 58

<211> 2629

<212> DNA

<213> Homo sapiens

<400> 58

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<210> 59

<211> 2629

<212> DNA

<213> Homo sapiens

<400> 59

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<210> 60

<211> 2629

<212> DNA

<213> Homo sapiens

<400> 60

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<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

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<211> 1182

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<220>

<223> Produced by genetic engineering

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<210> 64

<211> 1182

<212> DNA

<213> Artificial Sequence

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<223> Produced by genetic engineering

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<212> DNA

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<223> Produced by genetic engineering

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ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	gttgcgtttaa	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	1140
aaaaaactga	gttcaagac	cgaaaggctc	gactcagact	ctcccgccat	1182
			ga		

<210> 68

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 68

atggaagaac cacagtca	tcctagcg	ta	gaaccacccc	tgagtca	60
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gatgaagctc	cacgaatgcc	agaggccgct	ccacgcgtt	tccaggccca	240
acaccggcg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	cccttccat	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgcacaact	420
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gccccatcc	agcagagcca	gcacatgacg	gaggtcgatc	acaccatgag	540
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ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtgtt	660
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tcatgcattgg	gcggcatgaa	ccggcgccg	atccgtacca	tcatcactct	780
tcaggttaatc	tccttaggacg	gaattccctt	gaggtgcgtg	tttgcattgt	840
gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggt	agcctcacca	900
ccaggaagca	ctaagcgagc	actgccaaac	aacacgagct	gttctccaca	960
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ggcagccgtg	cccattcg	tcacctgaag	tccaaaaagg	gtcagtctac	1140
aaaaaactga	gttcaagacc	cgaaaggctc	actcagact	ctcccgccat	1181
			a		

<210> 69

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 69

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gatgaagctc	cacgaatgcc	agaggccgct	ccacgcgtt	tccaggccca	240
acaccggcg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	cccttccat	360

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tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcgaagacc	420
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gccatctaca	agcagagcca	gcacatgacg	gaggctgtac	gacgctgtcc	acaccatgag	540
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tcatgcattgg	gcggcatgaa	ccggcgccg	atccgtacca	tcatcactct	cgaggattcc	780
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aaaccttgg	acggagaata	tttcaccctg	cagatccgtg	gccgtgagcg	gttcgagatg	1020
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ggcagccggg	cccattcgtc	tcacctgaag	tccaaaaagg	gtcagtctac	tagtcgccat	1140
aaaaaaaaactga	gttcaagacc	gaaggtcctg	actcagactg	a		1181

<210> 70

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 70

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gtatgtattga	tgctgagccc	agacgatatt	gaacaatggt	tcactgagga	tccaggccca			180
gtatgtaa	gctc	acgaatgc	agaggccgt	ccacgcgtt	ccccagcacc	agcagctcct		240
acaccggccg	ccccagctcc	ggcccccattc	tggcctctgt	catcttctgt	cccttcccag			300
aaaaccttacc	agggcagct	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag			360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgcact	cgcgaagacc			420
tgcccagtc	aacttgggt	cgactccacc	ccttccac	gtacacgtgt	ccgcgcaatg			480
gccatctaca	agcagagcca	gcacatgacg	gaggctgtac	gacgctgtcc	acaccatgag			540
cgctgctcag	attctgtatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtAAC			600
ctacgcgtgg	agtatctaga	tgaccgcaac	actttcgac	acagtgttgt	gggccatata			660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactata	gtgtAACAGT			720
tcatgcattgg	gcggcatgaa	ccggcgccg	atccgtacca	tcatcactct	cgaggattcc			780
tcaggttaatc	tccttaggacg	gaattccctt	gagggtcggt	tttgcattgt	ccggggccgc			840
gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggt	agcctcacca	cgagctgcca			900
ccaggaagca	ctaagcgagc	actgccaaac	aacacgagct	tttctccaca	gccaagaag			960
aaaccttgg	acggagaata	tttcaccctg	cagatccgtg	gccgtgagcg	gttcgagatg			1020
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ggcagccggg	cccattcgtc	tcacctgaag	tccaaaaagg	gtcagtctac	tagtcgccat			1140
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<210> 71

<211> 1179

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(1179)

<221> misc_feature

<222> (1)...(1179)

<223> n = A,T,C or G

<400> 71

atg	gar	gar	ccn	car	nnn	gay	ccn	nnn	gtn	gar	ccn	ccn	ytn	nnn	car
Met	Glu	Glu	Pro	Gln	Ser	Asp	Pro	Ser	Val	Glu	Pro	Pro	Leu	Ser	Gln

1

5

10

15

48

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gar acn tty nnn gay ytn tgg aar ytn ytn ccn gar aay aay gtn ytn Glu Thr Phe Ser Asp Leu Trp Lys Leu Leu Pro Glu Asn Asn Val Leu 20 25 30	96
nnn ccn ytn ccn nnn car gcn atg gay gay ytn atg ytn nnn ccn gay Ser Pro Leu Pro Ser Gln Ala Met Asp Asp Leu Met Leu Ser Pro Asp 35 40 45	144
gay ath gar car tgg tty acn gar gay ccn ggn ccn gay gar gcn ccn Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro 50 55 60	192
nnn atg ccn gar gcn gcn ccn ccn gtn gcn ccn gcn ccn gcn gcn ccn Arg Met Pro Glu Ala Ala Pro Pro Val Ala Pro Ala Pro Ala Ala Pro 65 70 75 80	240
acn ccn gcn gcn ccn gcn ccn ccn nnn tgg ccn ytn nnn nnn nnn Thr Pro Ala Ala Pro Ala Pro Ala Pro Ser Trp Pro Leu Ser Ser Ser 85 90 95	288
gtn ccn nnn car aar acn tay car ggn nnn tay ggn tty nnn ytn ggn Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly 100 105 110	336
tty ytn cay nnn ggn acn gcn aar nnn gtn acn tgy acn tay nnn ccn Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro 115 120 125	384
gcn ytn aay aar atg tty tgy car ytn gcn aar acn tgy ccn gtn car Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln 130 135 140	432
ytn tgg gtn gay nnn acn ccn ccn ggn acn nnn gtn nnn gcn atg Leu Trp Val Asp Ser Thr Pro Pro Pro Gly Thr Arg Val Arg Ala Met 145 150 155 160	480
gcn ath tay aar car nnn car cay atg acn gar gtn gtn nnn nnn tgy Ala Ile Tyr Lys Gln Ser Gln His Met Thr Glu Val Val Arg Arg Cys 165 170 175	528
ccn cay cay gar nnn tgy nnn gay nnn gay ggn ytn gcn ccn ccn car Pro His His Glu Arg Cys Ser Asp Ser Asp Gly Leu Ala Pro Pro Gln 180 185 190	576
cay ytn ath nnn gtn gar ggn aay ytn nnn gtn gar tay ytn gay gay His Leu Ile Arg Val Glu Gly Asn Leu Arg Val Glu Tyr Leu Asp Asp 195 200 205	624
nnn aay acn tty nnn cay nnn gtn gtn gtn ccn tay gar ccn ccn gar Arg Asn Thr Phe Arg His Ser Val Val Val Pro Tyr Glu Pro Pro Glu 210 215 220	672
gtn ggn nnn gay tgy acn acn ath cay tay aay tay atg tgy aay nnn Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser 225 230 235 240	720
nnn tgy atg ggn ggn atg aay nnn nnn ccn ath ytn acn ath ath acn Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr 245 250 255	768
ytn gar gay nnn nnn ggn aay ytn ytn ggn nnn aay nnn tgy gar gtn Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val 260 265 270	816

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nnn gtn tgy gcn tgy ccn ggn nnn gay nnn nnn acn gar gar gar aay	864
Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn	
275 280 285	
ytn nnn aar aar ggn gar ccn cay cay gar ytn ccn ccn ggn nnn acn	912
Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr	
290 295 300	
aar nnn gcn ytn ccn aay aay acn nnn nnn nnn ccn car ccn aar aar	960
Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys	
305 310 315 320	
aar ccn ytn gay ggn gar tay tty acn ytn car ath nnn ggn nnn gar	1008
Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu	
325 330 335	
nnn tty gar atg tty nnn gar ytn aay gar gcn ytn gar ytn aar gay	1056
Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp	
340 345 350	
gcn car gcn ggn aar gar ccn ggn ggn nnn nnn gcn cay nnn nnn cay	1104
Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His	
355 360 365	
ytn aar nnn aar aar ggn car nnn acn nnn nnn cay aar aar ytn atg	1152
Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met	
370 375 380	
tty aar acn gar ggn ccn gay nnn gay	1179
Phe Lys Thr Glu Gly Pro Asp Ser Asp	
385 390	